

1. ☒ \*Fee Transmittal Form (e.g., PTO/SB/17)  
(submit an original and a duplicate for fee processing)

2. ☐ Applicant claims small entity status.  
See 37 CFR 1.27.

3. ☒ Specification [Total Pages 35]  
(preferred arrangement set forth below)

- Descriptive title of the Invention
- Cross References to Related Applications
- Statement Regarding Fed sponsored R & D
- Reference sequence listing, a table, or a computer program listing appendix or computer program listing appendix
- Background of the Invention
- Brief Summary of the Invention
- Brief Description of the Drawings (if filed)
- Detailed Description
- Claim(s)
- Abstract of the Disclosure

4. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets 4]  
☐ Informal ☒ Formal

5. Oath or Declaration [Total Pages 2]  

a. ☒ Newly executed (original or copy)

b. ☐ Copy from a prior application (37 C.F.R. § 1.63(d))  
(for continuation/divisional with Box 18 completed)  

i. ☐ **DELETION OF INVENTOR(S)**  
Signed statement attached deleting inventor(s) named in the prior application, see 37 C.F.R. §§ 1.63(d)(2) and 1.33(b).

6. ☐ Application Data Sheet. See 37 CFR 1.76

7. ☐ CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)

8. ☐ Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)  

a. ☐ Computer Readable Form (CRF)

b. Specification Sequence Listing on:  

i. ☐ CD-ROM or CD-R (2 copies); or

ii. ☐ paper

c. ☐ Statements verifying identity of above copies

9. ☒ Assignment Papers (cover sheet & document(s))

10. ☐ 37 C.F.R. § 3.73(b) Statement ☐ Power of Attorney  
(when there is an assignee)

11. ☐ English Translation Document (if applicable)

12. ☒ Information Disclosure Statement (IDS)/PTO-1449 ☐ Copies of IDS Citations

13. ☐ Preliminary Amendment

14. ☒ Return Receipt Postcard (MPEP 503)  
(Should be specifically itemized)

15. ☐ Certified Copy of Priority Document(s)  
(if foreign priority is claimed)

16. ☐ Nonpublication Request under 35 U.S.C. 122(b)(2)(B)(i).  
Applicant must attach form PTO/SB/35 or its equivalent.

17. ☐ Other: \_\_\_\_\_

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:  
☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No: \_\_\_\_\_  
Prior application information: Examiner: \_\_\_\_\_ Group / Art Unit: \_\_\_\_\_

For CONTINUATION or DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

19. CORRESPONDENCE ADDRESS

☐ Customer Number: \_\_\_\_\_ OR ☒ Correspondence address below

Name Woodard, Emhardt, Moriarty, McNett & Henry LLP

Address Bank One Center/Tower  
111 Monument Circle, Suite 3700

City Indianapolis State IN Zip Code 46204-5137

Country USA Telephone (317) 634-3456 Fax (317) 637-7561

Name (Print/Type) Brad A. Schepers Registration No. (Attorney/Agent) 45,431

Signature [Signature] Date March 18, 2004

Express Mail Label Number EL 983135507 US Date of Deposit March 18, 2004

I hereby certify that this paper is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR Section 1.10 on the date indicated above and is addressed to the Commissioner for Patents, Mail Stop Patent Application, P.O. Box 1450, Alexandria, VA 22313-1450.

[Signature] Signature of person mailing paper or fee

FEE TRANSMITTAL FOR FY 2004		Complete if Known																																																																																																																																																																																													
Effective 01/01/2003. Patent fees are subject to annual revision.		Application Number	New UTILITY Application																																																																																																																																																																																												
		Filing Date	March 18, 2004																																																																																																																																																																																												
		First Named Inventor	Lehmann K. Li																																																																																																																																																																																												
		Group Art Unit	Unassigned																																																																																																																																																																																												
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27		Examiner Name	Unassigned																																																																																																																																																																																												
Total Amount of Payment	(\$1698.00)	Attorney Docket Number	4002-3122/PC830.00																																																																																																																																																																																												
METHOD OF PAYMENT		FEE CALCULATION (continued)																																																																																																																																																																																													
<input checked="" type="checkbox"/> Check <input type="checkbox"/> Credit card <input type="checkbox"/> Money Order <input type="checkbox"/> Other <input type="checkbox"/> None		3. ADDITIONAL FEES																																																																																																																																																																																													
<input checked="" type="checkbox"/> Deposit Account: Deposit Account Number: 23-3030 Deposit Account Name: Woodard, Emhardt, Moriarty, McNett & Henry LLP		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Large Entity</th> <th colspan="2">Small Entity</th> <th rowspan="2">Fee Description</th> <th rowspan="2">Fee Paid</th> </tr> <tr> <th>Fee Code</th> <th>Fee (\$)</th> <th>Fee Code</th> <th>Fee (\$)</th> </tr> </thead> <tbody> <tr><td>1051</td><td>130</td><td>2051</td><td>65</td><td>Surcharge - late filing fee or oath</td><td></td></tr> <tr><td>1052</td><td>50</td><td>2052</td><td>25</td><td>Surcharge - late provisional filing fee or cover sheet.</td><td></td></tr> <tr><td>1053</td><td>130</td><td>1053</td><td>130</td><td>Non-English specification</td><td></td></tr> <tr><td>1812</td><td>2,520</td><td>1812</td><td>2,520</td><td>For filing a request for <i>ex parte</i> reexamination</td><td></td></tr> <tr><td>1804</td><td>920*</td><td>1804</td><td>920*</td><td>Requesting publication of SIR prior to Examiner's Action</td><td></td></tr> <tr><td>1805</td><td>1,840*</td><td>1805</td><td>1,840*</td><td>Requesting publication of SIR after Examiner's Action</td><td></td></tr> <tr><td>1251</td><td>110</td><td>2251</td><td>55</td><td>Extension for reply within first month</td><td></td></tr> <tr><td>1252</td><td>420</td><td>2252</td><td>210</td><td>Extension for reply within second month</td><td></td></tr> <tr><td>1253</td><td>950</td><td>2253</td><td>475</td><td>Extension for reply within third month</td><td></td></tr> <tr><td>1254</td><td>1,480</td><td>2254</td><td>740</td><td>Extension for reply within fourth month</td><td></td></tr> <tr><td>1255</td><td>2,010</td><td>2255</td><td>1,005</td><td>Extension for reply within fifth month</td><td></td></tr> <tr><td>1401</td><td>330</td><td>2401</td><td>165</td><td>Notice of Appeal</td><td></td></tr> <tr><td>1402</td><td>330</td><td>2402</td><td>165</td><td>Filing a brief in support of an appeal</td><td></td></tr> <tr><td>1403</td><td>290</td><td>2403</td><td>145</td><td>Request for oral hearing</td><td></td></tr> <tr><td>1451</td><td>1,510</td><td>1451</td><td>1,510</td><td>Petition to institute a public use proceeding</td><td></td></tr> <tr><td>1452</td><td>110</td><td>2452</td><td>55</td><td>Petition to revive - unavoidable</td><td></td></tr> <tr><td>1453</td><td>1,330</td><td>2453</td><td>665</td><td>Petition to revive - unintentional</td><td></td></tr> <tr><td>1501</td><td>1,330</td><td>2501</td><td>665</td><td>Utility issue fee (or reissue)</td><td></td></tr> <tr><td>1502</td><td>480</td><td>2502</td><td>240</td><td>Design issue fee</td><td></td></tr> <tr><td>1503</td><td>640</td><td>2503</td><td>320</td><td>Plant issue fee</td><td></td></tr> <tr><td>1460</td><td>130</td><td>1460</td><td>130</td><td>Petitions to the Commissioner</td><td></td></tr> <tr><td>1807</td><td>50</td><td>1807</td><td>50</td><td>Petitions related to provisional applications</td><td></td></tr> <tr><td>1806</td><td>180</td><td>1806</td><td>180</td><td>Submission of Information Disclosure Stmt</td><td></td></tr> <tr><td>8021</td><td>40</td><td>8021</td><td>40</td><td>Recording each patent assignment per property (times number of properties)</td><td>40.00</td></tr> <tr><td>1809</td><td>770</td><td>2809</td><td>385</td><td>Filing a submission after final rejection (37 CFR 1.129(a))</td><td></td></tr> <tr><td>1810</td><td>770</td><td>2810</td><td>385</td><td>For each additional invention to be examined (37 CFR 1.129(b))</td><td></td></tr> <tr><td>1801</td><td>770</td><td>2801</td><td>385</td><td>Request for Continued Examination (RCE)</td><td></td></tr> <tr><td>1802</td><td>900</td><td>1802</td><td>900</td><td>Request for expedited examination of a design application</td><td></td></tr> <tr><td colspan="6">Other Fee (specify) _____</td></tr> <tr> <td colspan="2" style="text-align: right;">SUBTOTAL (1) (\$ 770.00)</td> <td colspan="2" style="text-align: right;">SUBTOTAL (3) (\$ 40.00)</td> </tr> </tbody> </table>		Large Entity		Small Entity		Fee Description	Fee Paid	Fee Code	Fee (\$)	Fee Code	Fee (\$)	1051	130	2051	65	Surcharge - late filing fee or oath		1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet.		1053	130	1053	130	Non-English specification		1812	2,520	1812	2,520	For filing a request for <i>ex parte</i> reexamination		1804	920*	1804	920*	Requesting publication of SIR prior to Examiner's Action		1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner's Action		1251	110	2251	55	Extension for reply within first month		1252	420	2252	210	Extension for reply within second month		1253	950	2253	475	Extension for reply within third month		1254	1,480	2254	740	Extension for reply within fourth month		1255	2,010	2255	1,005	Extension for reply within fifth month		1401	330	2401	165	Notice of Appeal		1402	330	2402	165	Filing a brief in support of an appeal		1403	290	2403	145	Request for oral hearing		1451	1,510	1451	1,510	Petition to institute a public use proceeding		1452	110	2452	55	Petition to revive - unavoidable		1453	1,330	2453	665	Petition to revive - unintentional		1501	1,330	2501	665	Utility issue fee (or reissue)		1502	480	2502	240	Design issue fee		1503	640	2503	320	Plant issue fee		1460	130	1460	130	Petitions to the Commissioner		1807	50	1807	50	Petitions related to provisional applications		1806	180	1806	180	Submission of Information Disclosure Stmt		8021	40	8021	40	Recording each patent assignment per property (times number of properties)	40.00	1809	770	2809	385	Filing a submission after final rejection (37 CFR 1.129(a))		1810	770	2810	385	For each additional invention to be examined (37 CFR 1.129(b))		1801	770	2801	385	Request for Continued Examination (RCE)		1802	900	1802	900	Request for expedited examination of a design application		Other Fee (specify) _____						SUBTOTAL (1) (\$ 770.00)		SUBTOTAL (3) (\$ 40.00)	
Large Entity		Small Entity		Fee Description	Fee Paid																																																																																																																																																																																										
Fee Code	Fee (\$)	Fee Code	Fee (\$)																																																																																																																																																																																												
1051	130	2051	65	Surcharge - late filing fee or oath																																																																																																																																																																																											
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet.																																																																																																																																																																																											
1053	130	1053	130	Non-English specification																																																																																																																																																																																											
1812	2,520	1812	2,520	For filing a request for <i>ex parte</i> reexamination																																																																																																																																																																																											
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner's Action																																																																																																																																																																																											
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner's Action																																																																																																																																																																																											
1251	110	2251	55	Extension for reply within first month																																																																																																																																																																																											
1252	420	2252	210	Extension for reply within second month																																																																																																																																																																																											
1253	950	2253	475	Extension for reply within third month																																																																																																																																																																																											
1254	1,480	2254	740	Extension for reply within fourth month																																																																																																																																																																																											
1255	2,010	2255	1,005	Extension for reply within fifth month																																																																																																																																																																																											
1401	330	2401	165	Notice of Appeal																																																																																																																																																																																											
1402	330	2402	165	Filing a brief in support of an appeal																																																																																																																																																																																											
1403	290	2403	145	Request for oral hearing																																																																																																																																																																																											
1451	1,510	1451	1,510	Petition to institute a public use proceeding																																																																																																																																																																																											
1452	110	2452	55	Petition to revive - unavoidable																																																																																																																																																																																											
1453	1,330	2453	665	Petition to revive - unintentional																																																																																																																																																																																											
1501	1,330	2501	665	Utility issue fee (or reissue)																																																																																																																																																																																											
1502	480	2502	240	Design issue fee																																																																																																																																																																																											
1503	640	2503	320	Plant issue fee																																																																																																																																																																																											
1460	130	1460	130	Petitions to the Commissioner																																																																																																																																																																																											
1807	50	1807	50	Petitions related to provisional applications																																																																																																																																																																																											
1806	180	1806	180	Submission of Information Disclosure Stmt																																																																																																																																																																																											
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	40.00																																																																																																																																																																																										
1809	770	2809	385	Filing a submission after final rejection (37 CFR 1.129(a))																																																																																																																																																																																											
1810	770	2810	385	For each additional invention to be examined (37 CFR 1.129(b))																																																																																																																																																																																											
1801	770	2801	385	Request for Continued Examination (RCE)																																																																																																																																																																																											
1802	900	1802	900	Request for expedited examination of a design application																																																																																																																																																																																											
Other Fee (specify) _____																																																																																																																																																																																															
SUBTOTAL (1) (\$ 770.00)		SUBTOTAL (3) (\$ 40.00)																																																																																																																																																																																													
The Commissioner is authorized to: (check all that apply) <input type="checkbox"/> Charge fee(s) indicated below <input checked="" type="checkbox"/> Credit any overpayments <input checked="" type="checkbox"/> Charge any additional fee(s) during the pendency of this application, excluding the payment of issue fees <input type="checkbox"/> Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.																																																																																																																																																																																															
FEE CALCULATION																																																																																																																																																																																															
<b>1. BASIC FILING FEE</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Large Fee Code</th> <th>Entity Fee (\$)</th> <th>Small Fee Code</th> <th>Entity Fee (\$)</th> <th>Fee Description</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr><td>1001</td><td>770</td><td>2001</td><td>385</td><td>Utility Filing Fee</td><td>770.00</td></tr> <tr><td>1002</td><td>340</td><td>2002</td><td>170</td><td>Design Filing Fee</td><td></td></tr> <tr><td>1003</td><td>530</td><td>2003</td><td>265</td><td>Plant Filing Fee</td><td></td></tr> <tr><td>1004</td><td>770</td><td>2004</td><td>385</td><td>Reissue Filing Fee</td><td></td></tr> <tr><td>1005</td><td>160</td><td>2005</td><td>80</td><td>Provisional Filing Fee</td><td></td></tr> <tr><td colspan="5" style="text-align: right;">SUBTOTAL (1)</td><td>(\$ 770.00)</td></tr> </tbody> </table>		Large Fee Code	Entity Fee (\$)	Small Fee Code	Entity Fee (\$)	Fee Description	Fee Paid	1001	770	2001	385	Utility Filing Fee	770.00	1002	340	2002	170	Design Filing Fee		1003	530	2003	265	Plant Filing Fee		1004	770	2004	385	Reissue Filing Fee		1005	160	2005	80	Provisional Filing Fee		SUBTOTAL (1)					(\$ 770.00)																																																																																																																																																				
Large Fee Code	Entity Fee (\$)	Small Fee Code	Entity Fee (\$)	Fee Description	Fee Paid																																																																																																																																																																																										
1001	770	2001	385	Utility Filing Fee	770.00																																																																																																																																																																																										
1002	340	2002	170	Design Filing Fee																																																																																																																																																																																											
1003	530	2003	265	Plant Filing Fee																																																																																																																																																																																											
1004	770	2004	385	Reissue Filing Fee																																																																																																																																																																																											
1005	160	2005	80	Provisional Filing Fee																																																																																																																																																																																											
SUBTOTAL (1)					(\$ 770.00)																																																																																																																																																																																										
<b>2. EXTRA CLAIM FEES</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Total Claims</th> <th>Extra Claims</th> <th>Fee From Below</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr> <td>55</td> <td>-20** = 35</td> <td>X 18.00</td> <td>= 630.00</td> </tr> <tr> <td>Independent Claims: 6</td> <td>-3** = 3</td> <td>X 86.00</td> <td>= 258.00</td> </tr> <tr> <td>Multiple Dependent</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Total Claims	Extra Claims	Fee From Below	Fee Paid	55	-20** = 35	X 18.00	= 630.00	Independent Claims: 6	-3** = 3	X 86.00	= 258.00	Multiple Dependent																																																																																																																																																																																	
Total Claims	Extra Claims	Fee From Below	Fee Paid																																																																																																																																																																																												
55	-20** = 35	X 18.00	= 630.00																																																																																																																																																																																												
Independent Claims: 6	-3** = 3	X 86.00	= 258.00																																																																																																																																																																																												
Multiple Dependent																																																																																																																																																																																															
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Large Entity</th> <th colspan="2">Small Entity</th> <th rowspan="2">Fee Description</th> </tr> <tr> <th>Fee Code</th> <th>Fee (\$)</th> <th>Fee Code</th> <th>Fee (\$)</th> </tr> </thead> <tbody> <tr><td>1202</td><td>18</td><td>2202</td><td>9</td><td>Claims in excess of 20</td></tr> <tr><td>1201</td><td>86</td><td>2201</td><td>43</td><td>Independent claims in excess of 3</td></tr> <tr><td>1203</td><td>290</td><td>2203</td><td>145</td><td>Multiple dependent claim, if not paid</td></tr> <tr><td>1204</td><td>86</td><td>2204</td><td>43</td><td>**Reissue independent claims over original patent</td></tr> <tr><td>1205</td><td>18</td><td>2205</td><td>9</td><td>**Reissue claims in excess of 20 and over original patent</td></tr> <tr><td colspan="5" style="text-align: right;">SUBTOTAL (2) (\$ 888.00)</td></tr> </tbody> </table>		Large Entity		Small Entity		Fee Description	Fee Code	Fee (\$)	Fee Code	Fee (\$)	1202	18	2202	9	Claims in excess of 20	1201	86	2201	43	Independent claims in excess of 3	1203	290	2203	145	Multiple dependent claim, if not paid	1204	86	2204	43	**Reissue independent claims over original patent	1205	18	2205	9	**Reissue claims in excess of 20 and over original patent	SUBTOTAL (2) (\$ 888.00)																																																																																																																																																											
Large Entity		Small Entity		Fee Description																																																																																																																																																																																											
Fee Code	Fee (\$)	Fee Code	Fee (\$)																																																																																																																																																																																												
1202	18	2202	9	Claims in excess of 20																																																																																																																																																																																											
1201	86	2201	43	Independent claims in excess of 3																																																																																																																																																																																											
1203	290	2203	145	Multiple dependent claim, if not paid																																																																																																																																																																																											
1204	86	2204	43	**Reissue independent claims over original patent																																																																																																																																																																																											
1205	18	2205	9	**Reissue claims in excess of 20 and over original patent																																																																																																																																																																																											
SUBTOTAL (2) (\$ 888.00)																																																																																																																																																																																															
**or number previously paid, if greater; For Reissues, see above																																																																																																																																																																																															

**WARNING:** Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038. This collection of information is required by 37 CFR 1.136(a). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 6 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.